

IN THE CLAIMS:

Please retain claims 1 to 10, which have been set forth below with their appropriate status identifiers for the convenience of the examiner.

1. (Previously Presented) A manufacturing method of a phase-shift mask, comprising:

seeking a relationship of optical conditions of an exposure optical system used for exposure and a mask structure with displacement of a pattern to be transferred by exposure;

finding said optical conditions and said mask structure that limit displacement of said pattern within a required range, taking manufacturing errors of the mask into consideration;

examining the optical conditions and the mask structure obtained to determine whether they ensure a required exposure tolerance and a required focal depth; and

executing fabrication of such a mask to obtain said mask structure when the result of the examination is acceptable.

2. (Previously Presented) The manufacturing method of a phase-shift mask according to claim 1 wherein said optical conditions include, at least, a numerical aperture and a partial coherence factor.

3. (Previously Presented) The manufacturing method of a phase-shift mask according to claim 1 wherein said phase-shift mask is a Levenson phase-shift mask.

4. (Previously Presented) The manufacturing method of a phase-shift mask according to claim 3 wherein said Levenson phase-

shift mask is of a substrate-excavation-type, and said mask structure is regulated by the amount of excavation of a substrate.

5. (Previously Presented) The manufacturing method of a phase-shift mask according to claim 1 wherein said Levenson phase-shift mask is of a phase-shifter-added-type, and said mask structure is regulated by the thickness of a phase shifter.

6. (Previously Presented) A method of making a resist pattern through exposure using a phase-shift mask, comprising:

seeking a relationship of optical conditions of an exposure optical system used for exposure and a mask structure of said phase-shift mask with displacement of a pattern to be transferred by exposure;

finding said optical conditions and said mask structure that limit displacement of said pattern within a required range, taking manufacturing errors of the mask into consideration;

examining the optical conditions and the mask structure obtained to determine whether they ensure a required exposure tolerance and a required focal depth; and

when the result of the examination is acceptable, fixing said exposure optical system to the optical conditions selected, then actually manufacturing said phase-shift mask having the mask structure selected, and conducting exposure using said exposure optical system and said phase-shift mask.

7. (Previously Presented) The method of making a resist pattern according to claim 6 wherein said optical conditions include, at least, a numerical aperture and a partial coherence factor.

8. (Previously Presented) The method of making a resist pattern according to claim 6 wherein said phase-shift mask is a Levenson phase-shift mask.

9. (Previously Presented) The method of making a resist pattern according to claim 8 wherein said Levenson phase-shift mask is of a substrate-excavation-type, and said mask structure is regulated by the amount of excavation of a substrate.

10. (Previously Presented) The method of making a resist pattern according to claim 8 wherein said Levenson phase-shift mask is of a phase-shifter-added-type, and said mask structure is regulated by the thickness of a phase shifter.

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)